

ABSTRACT

There are provided a NOx storage reduction catalyst which is provided in an exhaust passage for an engine, and a sulfur concentration sensor which can detect a total concentration of SOx and H<sub>2</sub>S in exhaust gas that has passed through the NOx catalyst, and a concentration of SOx in the exhaust gas. An operating state of the engine is controlled such that SOx is released from the NOx catalyst (sulfur poisoning recovery process). When a concentration of the hydrogen sulfide obtained based on the total concentration and the concentration of SOx that are detected by the sulfur concentration sensor during the sulfur poisoning recovery process exceeds a permissible limit, an operating state of the engine is controlled such that the sulfur oxide is released from the NOx catalyst, an amount of the released sulfur oxide is in a predetermined range, and the concentration of the hydrogen sulfide is reduced.

15 Selected Drawings 10A & 10B